

Claims

1. In air conditioning apparatus having a cabinet containing a blower assembly, said blower assembly having an air blower for moving air through said cabinet in a predetermined direction and a housing in which said blower is located,  
5 wherein the improvement comprises an electric heater assembly projecting into said housing from a wall thereof in transverse relationship to said blower with respect to said predetermined direction, said heater assembly being removably mounted with said wall.
- 10 2. The apparatus of claim 1 wherein said heater assembly has a major dimension and a minor dimension, said major dimension being generally parallel to said predetermined direction.
3. The apparatus of claim 1 wherein said heater assembly is comprised of at least one heating coil having a major dimension extending generally parallel to  
15 said predetermined direction.
4. The apparatus of claim 3 further including at least one insulator extending between adjacent portions of said at least one coil, said at least one insulator having a major surface and a minor surface, said major surface being  
20 generally parallel to said predetermined direction.
5. The apparatus of claim 3 wherein said blower is a centrifugal blower adapted to discharge air transversely toward said heater assembly and along said major dimension of said at least one coil.

6. The apparatus of claim 1 wherein said cabinet has a heat exchanger section containing a heat exchanger and a blower section containing said blower assembly.

7. The apparatus of claim 6 wherein said cabinet further includes a filter section containing an air filter, said blower section being downstream of said heat exchanger section relative to said predetermined direction of air movement in said cabinet and said heat exchanger section being downstream of said filter section.

8. The apparatus of claim 1 wherein said heater assembly includes at least one generally U-shaped heating coil having parallel legs extending along said major dimension and a curved portion connecting said legs.

9. The apparatus of claim 1 wherein said housing has an open mouth through which air is dischargeable by said blower in said predetermined direction, said wall having a relatively flat portion and a curved portion, said heater assembly projecting into said housing from said relatively flat portion.

10. The apparatus of claim 9 wherein said heater assembly includes at least one heating element and a relatively flat plate on which said heating element is mounted, said heating element being insertable into said housing through an opening in said relatively flat portion, said plate being removably mounted with said wall to close off said opening and to define at least part of said relatively flat portion.

11. Air conditioning apparatus, comprising:  
a cabinet having a blower assembly located therein, said blower assembly including an air blower for moving air through said cabinet in a predetermined direction and a housing in which said blower is located; and

an electric heater assembly projecting into said housing from a wall thereof, said heater assembly including at least one heating coil having a major dimension extending generally parallel to said predetermined direction.

5           12.    The apparatus of claim 11 wherein said heater assembly includes plural heating coils in parallel array, each of said coils being generally U-shaped with parallel legs extending along said major dimension and a curved portion connecting said legs.

          13.    The apparatus of claim 12 further including at least one insulator  
10   extending between the legs of each coil, said at least one insulator having a major surface and a minor surface, said major surface being oriented generally parallel to said predetermined direction.

          14.    The apparatus of claim 11 wherein said coil is positioned in transverse relationship to said blower relative to said predetermined direction.

15           15.    The apparatus of claim 11 wherein said housing has an open mouth through which air is dischargeable by said blower in said predetermined direction, said wall having a relatively flat portion and a curved portion, said heater assembly projecting into said housing from said relatively flat portion.

20           16.    The apparatus of claim 15 wherein said heater assembly includes at least one heating element and a relatively flat plate on which said heating element is mounted, said heating element being insertable into said housing through an opening in said relatively flat portion, said plate being removably mounted with said  
25   wall to close off said opening and to define at least part of said relatively flat portion.

17. Air conditioning apparatus, comprising:

a cabinet having a blower assembly located therein, said blower assembly including an air blower for moving air through said cabinet in a predetermined direction and a housing in which said blower is located; and

5 an electric heater assembly projecting into said housing from a wall thereof, said housing having an open mouth through which air is dischargeable by said blower in said predetermined direction, said wall having a curved portion and a relatively flat portion, said heater assembly projecting into said housing from said relatively flat portion.

10

18. The apparatus of claim 17 wherein said heater assembly includes at least one heating element and a relatively flat plate on which said heating element is mounted, said heating element being insertable into said housing through an opening in said relatively flat portion, said plate being removably mounted with said  
15 wall to close off said opening and to define at least part of said relatively flat portion.

19. The apparatus of claim 17 wherein said heater assembly includes at least one heating coil oriented generally parallel to said predetermined direction, said coil having a relatively straight portion that is generally parallel to said relatively flat portion of said wall and a curved portion that is generally parallel to said curved  
20 portion of said wall.

20. The apparatus of claim 17 wherein heater assembly includes at least one generally U-shaped coil having parallel legs extending along said predetermined direction, each leg having a relatively straight portion that is generally parallel to said relatively flat portion of said wall and a curved portion that is generally parallel to  
25 said curved portion of said wall.